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ABSTRACT

The problematic results of longitudinal studies on college writing indicate the need for multidimensional studies to be able to explore perceptible changes in students' writing. Accordingly a small pilot case study, to explore the promise and the limitations of doing a longitudinal multidimensional study, investigated whether impromptu essays written across the span of college showed change in critical thinking. Six upper level subjects had written in various contexts from the time they entered the University of Michigan as freshmen. Further holistic analysis of two impromptu essays written by one of the six students in his freshman and junior years, was undertaken and applied to three cognitive-developmental indices. Findings showed that the cognitive-developmental approaches can be beneficial but that there is a need for a scale of flexible measures, where content and form can be perceived in a flexible relationship instead of as a single entity. As datum the impromptu essay, despite some limitations, also has much to offer, and did, in this case, reveal that a student can think critically. Findings also suggest that multidimensional approaches do speak to the need in evaluating college writing. (The two student impromptu essays discussed in this paper as well as one chart are included, and four footnotes and 18 references are appended.) (MS)

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STUDYING THE LONGITUDINAL STUDY

I. INTRODUCTION: DO IMPROMPTU ESSAYS SHOW CHANGES IN CRITICAL THINKING OVER THE SPAN OF COLLEGE? CAUTIONS AND INSIGHTS FROM A PILOT CASE STUDY

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by Francelia Clark

Why do we particularly need longitudinal studies of college writing? We need them because we have a live question as to whether our college writing courses are asking students, in David Bartholomae's words, to use their "basic skills in the service of appropriate social and intellectual ends," to "think critically and act consciously as a reader or writer." Ideally, the longitudinal study should be able to reveal whether students as Seniors do in fact write in ways more nearly serving these appropriate ends and entailing these abilities than they did as Freshmen.

But the results of longitudinal studies, taken together, are problematic. What we find is that, on the one hand, studies examining writing from a traditional rhetorical

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viewpoint show that late-college-level students write no better than early-college-level students (Albert Kitzhaber, 1963; Aviva Freedman and Ian Pringle, 1980; Charlene Eblen, 1981). On the other hand, studies examining writing from a cognitive-developmental viewpoint tend to show that late-college-level students are likely to write more "maturely" than early-college-level students (Freedman and Pringle; Janice Hays, 1983, 1986). Thus it appears that we need not only longitudinal studies but, as Freedman and Pringle and before them Britton, et al., observed, broader conceptions of the writing process. That is, we need multidimensional studies, or even multidisciplinary studies, if we are going to try to explore where changes may be perceptible. We need to acknowledge different viewpoints of the same essay.

Accordingly a small pilot case study began at Michigan in 1985, with two goals: the first, to explore the promise and the limitations of doing a longitudinal multidimensional study, and the second to try by these methods to shed light on "Change in Thinking and Writing During College." Its subjects were six Juniors and Seniors enrolled in the researcher's upper-class writing-requirement course. Data were five materials: two impromptu essays, written as entering Freshman and as Junior or Senior at the request of the researcher; out-of-class papers as Freshman; the corpus of papers in the researcher's course; and writing conferences during course with follow-up interview. In essence, the

Pilot Case Study separates strands. Its choice of its experimental methods of analysis corresponds in part (separate rhetorical and cognitive approaches) with the larger preliminary study of Freedman and Pringle (1980); its use of impromptu essays as part of the data corresponds with Hays (1983) and Eblen (1981). Its longitudinal method of testing the same students three years apart corresponds with Eblen. Its case-study frame of reference provides insight from student and teacher on how these separate findings may have some relation to one another.

My focus today is on the problems and promise of this study in respect to a current question in writing research: Do impromptu essays across the span of college show change in critical thinking? First, we can underscore Bartholomae's definition of critical thinking with the developmentalist Karen Kitchener's definition: critical thinking is not only a "set of skills or steps" (a rhetorical complexity), but a "particular set of assumptions about knowledge" (a social, epistemological, or intellectual complexity). We are looking for both dimensions.

Second, to get at this question we must look more closely at the data, at the "prompt" and the impromptu essays that are primary materials in both this study and the larger study that followed. The placement exam given all entering students at Michigan is a 50-minute impromptu essay on a controversial topic of general knowledge, of

which the first sentence and a choice among three following sentences is given. The student chooses a sentence suggesting a direction and continues with an essay. The exam ordinarily receives a criterion-referenced holistic score by two experienced readers of the English Composition Board; disparate scores are resolved by a third reader. Readers score the exams on a 4-point scale, the highest score exempting the student from the standard Freshman-level writing course and the lowest score placing the student in a Tutorial, pre-college-level writing course. Most briefly, the readers consider three domains of criteria, weighted toward rhetorical effectiveness. Readers weigh most heavily global features (organization, development); secondly, local features (paragraph, sentence); and least heavily graphemic features (punctuation, spelling).

On the side of benefits for a multidimensional study of writing, the ECB placement essay, written as Freshman and again as upper-classman, provides analogous tasks in early and late college, draws on students' general knowledge and values, is itself continually tested, is in regular use for upper-class transfer students as well as for incoming Freshmen. On the side of problems for such a study, the essay task was created with incoming Freshmen in mind. Each essay's audience, purported purpose, and topic is assigned, giving a potential advantage to a student who has just coincidentally studied the subject. Conversely, a

student may be at a disadvantage who has unusual difficulty generating ideas without relying on content of a course or on extended "incubation" time."[1] Finally, the Freshman's motivation to write, placement, differs from the Senior's motivation, reimbursement. The conventional method used to analyze these impromptu essays, the standard criterion-referenced holistic scoring, in "blind" readings by trained staff, has the advantage of long-monitored inter-rater reliability. However, this method has disadvantages finally outweighing reliability: the four-point scale merely places, distinguishing none of its criteria; it also seems to show a "ceiling effect"[2] for students who score high. Freshmen who score high have little room to go higher. For this study, individual readers' observations in a subsequent retraining session were helpful in making distinctions finer than their holistic scores.

Third, we must see how the varied methods of approach compare. For a closer look at how the methods work as well as first findings, let us go to a sample of the two impromptu essays of one student, Jan, writing in 1982 as a new Freshman and in 1985 as a Junior, and to the chart following the essays.* On the chart my point over all is direction, indicated by the arrows: the writing quality moves in different directions, depending on your approach.

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*Despite the student's gracious willingness to be quoted, references in our work subsequent to the CCCC panel presentation have changed his name from "Chris" to "Jan."

1982

AN OPEN LETTER TO PARENTS OF TV ADDICTS

By the time the average person in North America graduates from high school she or he will have seen 18,000 hours of television. Since real experience is the primary source of learning, children are growing up addicted to television and ignorant of life.

[1]Dear parents, the above statement will of course seem shocking to you, perhaps you may even consider it an overreaction. [2]Granted, "average" numbers used in statistical research always entail a certain amount of generalization.

[3]But to what extent does this average apply to your child?

[4]Those 18,000 hours of television watching mean that the average child, between kindergarten and graduation from high school, has been at the T.V. set between 3 and 4 hours a day!

[5]What I ask you is this: do you consider it to be healthy for your child to spend one fourth of his or her waking hours glued to the tube?

[6]Real experience, as stated before, is the primary source of learning. [7]This involves personal encounters with, and interaction between your child and the world around him. [8]Television is no substitute for this, for the world of TV is separated from the child; the child can not question or influence events unfolding themselves on the screen, he can merely observe them. [9]In other words, the child is learning passively, as opposed to actively.

[10]Now it is not the intention of the writer to have all TV sets in North America banned or destroyed; rather, television viewing must be balanced with other aspects of the child's learning process. [11]The wise parent will encourage his or her child to watch programs that may be educational or entertaining; at the same time, the child should be aware that there are activities and sights beyond the four walls of the T.V. room.

[12]The emphasis here is on the parents.

[13]You must involve yourselves in showing your child what wondrous things there are to do in the kitchen, in the backyard, at a football game. [14]You must assume the responsibility of, in essence, teaching your child about life itself. [15]Despite the implication of the wording, "active" learning does require a stimulus from the outside; if your child did not require any sort of prompting or suggestion, he or she would hardly be normal.

[16]Unrestricted and uncomplemented passive learning leads to apathetic children, some say. [17]True or not, it <u>is</u> certain that if your child turns to the T.V. set alone for information and entertainment, the fault is not the child's - or the television set's. [18]Dear readers, only <u>you</u> can make the effort to provide your child with an active interest and involvement in the world beyond the T.V. room. [19]For the T.V. set is but a substitute for the attention of your child's parents.

1985

"Sexual experimentation is widespread among high school students, yet most states have laws that prevent minors from obtaining contraceptives or treatment for venereal disease without their parents being notified. While these laws do intrude to some extent into their private lives, young people are often unable to deal with problems of sexuality and need the help their parents can provide."

[1]The problem faced by authorities in the matter of providing education and, if required, contraception and medical treatment to minors' concerns the extent to which the minor's parents are to be involved and aware of the interaction between their child and the authorities. [2]Such "interaction" includes sexual awareness education in high school as well as medical attention and counselling, and parental participation becomes unavoidable in view of their legal and moral responsibility to and for their children.

[3]Whatever one's view of the rightness or wrongness of juvenile sexual experimentation, there can be no doubt that both the parents and their children are entitled to education on teenage sexual awareness, perhaps to an even greater extent than on alcohol and drug abuse. [4]While there are laws restricting the sale and use of alcohol and drugs, no such laws apply to sexual knowledge between consenting adults.

[5]As the monitoring and restriction on juvenile sexuality is a personal rather than legal judgment, the role of government agencies becomes more that of the go-between. [6]The availability of sexual education and clinical services to minors with parental awareness violates no one's civil rights, as the guardian of the minor holds legal responsibility for him or her and is therefore entitled to knowledge of his or her actions. [7]The purpose of education is to lessen friction between parents and minors due to the actions of the latter. Nobody benefits from turning juvenile sexual experimentation into a crime.

DIRECTIONS OF CHANGE:

SOME APPROACHES OF THE PILOT STUDY, SHOWING RESPECTIVE ROUGHLY ESTIMATED RATINGS OF IMPROMPTU ESSAYS, 1982, 1985 OF A U OF M WRITER, JAN

	("remedial" not shown)	"low average"	"high average"	"high" or "superior"
I TRADITIONAL-COMPOSITION	Holistic score (ECB)	3	2 1982 1985	1
	Qualitative terms used (ECB readers)			
	development	1982 1985	1982 uneven →	1985
	complexity	1985 ←	1982	
	clarity		1982 →	1985
	register			
	Quantitative measures essay length (50 min.)	1985 ←	1982	
	sentence length		1982 →	1985
II FUNCTIONAL-ANALYTIC	Given-new contract, sentences (Haviland, Clark)	1985 ←	1982	
	Cohesive ties (Halliday, Hasan) referential & lexical)	1985 ←	1982	
	cohesive texture	1982 →		1985
III COGNITIVE-DEVELOPMENTAL	Abstracting level (Freedman, Pringle) from Moffett, Britton	Report-Commentary	A generalization reorganizes data	Generalizations about " "
		1982 uneven →		1985
	Convention-orientation (S. Miller) from Kohlberg	Conventional-stereotyped	Conventional social system	Post-conventional (values ≠ system)
			1982 uneven →	1985
	Expansion of viewpoint (J. Hays) from Perry	Dualistic (right/wrong)	Relativistic (dialectic)	Relativistic-yet-committed
			1982 uneven →	1985
IV CASE-STUDY CONTEXT	Considered compositions, 1982, 1985 instructors' evaluations abstracting level (F. & P.)			1982 1985 1982→1985
	Interview, 1985, on impromptu	"Dualistic preference" 82		"Relativistic preference" 85
		"Commitment to ECB essay" 1982 and 85		

On our standard ECB holistic reading, Jan scored exactly the same as Freshman and as Junior. Yet changes are what strike the reader of the two. Impressionistically, holistic readers observed in a retraining session that neither essay was strongly developed; that the complexity and register of the second essay was higher; but that the second essay was less clear. For both essays, readers differed considerably as to the effects these shortcomings had on their judgment of the whole. Quantitatively, the second essay is of course shorter, but with much longer sentences. My nontechnical borrowing of the functional-analytic approach published by Halliday and Hasan suggests that Jan's referential and lexical ties are less effective in 1985, while his cohesive texture has become considerably more dense. The reader will note Jan's writing seems to move in conflicting directions here.

I wish to direct the attention of this forum especially to the attempt to apply three cognitive-developmental indices to this pair of impromptu writings. It is these three views that primarily address rhetorical strategy <u>in combination with</u> assumptions about knowledge. The indices are: level of abstracting, by Freedman and Pringle, adapting work of James Moffett and Britton et al., explicitly to out-of-class essays; orientation to convention, by Susan Miller, adapting the work of Lawrence Kohlberg; and expansion of viewpoint by Hays, adapting the work of William G. Perry. My interpretation

here is preliminary, taken from publication of these three authors. Use of the indices serves to point out some intellectual-rhetorical inconsistencies within the essays. In 1982, Jan's title and early sentences appear to this reader to be fairly "dualistic" in outlook, portraying television as a clear wrong for the health of a child, in ways "conventionally stereotyped" in terms of viewpoint (Hays) and convention-orientation (Miller). At the same time his essay begins by holding very close to the material given in the stimulus and simply enlarging on it - a "report-commentary" in Freedman and Pringle's terms. But this essay is uneven. It begins to change in the next paragraph (after sentence 6), working toward distinguishing the terms "passively" and "actively." At sentence 15 it makes a new distinction in the definition of "active," "despite the implication of the wording." Most notably at sentence 16, Jan moves his own early view that television is detrimental into the state of a questionable option among beliefs: "some say . . ." "true or not." This abstracting to a definition and this more relative world view seem to creep in or to be built inductively, depending on how you look at them. They do not organize the essay, hence they do not raise his essay as a whole on Freedman and Pringle's index of abstracting, but they do seem to reorganize it. They move to an essay suggesting intellectual complexity. The rating on Hays' and Miller's

indices would differ according to which part of the essay dominates the reader's judgment in terms of quality of the whole.[3]

The larger frame of reference surrounding Jan's Freshman year impromptu essay offers more surprises. In interview about this essay, looking back from 1985 but after learning that I thought I perceived "maturation" between the two essays, Jan discounted its substance. He recalled, "I had been in the country perhaps two weeks; I had seen American TV maybe twice. But I was a bit of a hot-shot and thought to have some fun: 'they don't really care how I think, but how I write.'" His comments bear out the effect of the first half of it. But Jan's seven Freshman-year Great Books papers, when evaluated by this reader according to Freedman and Pringle's index of abstracting, after the first all score within the upper levels. These out-of-class essays bear out the signs of the latter half of his essay.

By contrast in his Junior-year essay of 1985, Jan's first sentence redefines the problem on a new level of abstracting (Freedman and Pringle); the essay goes on to express values beyond ordinary conventions (Miller), values of a relativistic world on Hays' scale in which one can see the writer laying out relationships ("the authorities face a problem"), and cautiously determining a path among priorities (". . . The role of government agencies becomes more of a go-between.") These indications

of his view of the world suggest high levels on the cognitive scales.[4] -- Or, in Patricia Bizzell's view, they would suggest a striking academic socialization. Here, his lack of development of his argument would seem to qualify the indication by Hays' scale, and analogously, his lack of "particulars dealt with" would qualify it on Freedman and Pringle's scale. Yet even a movement from "unevenly mature" to "clearly mature but not developed" does appear as a change toward maturity on all three indices, as the chart shows.

Jan claimed to have had little commitment to his Junior-year impromptu essay, either. Of the 1985 essay he said, "Sexual education, especially to one coming from Denmark, is not really a problem. Education as an answer may be passing it off, not really addressing the issue. I was still trying to decide what to write when the paper was done." This comment would support the perceptions that the essay lacks development, and even that it lacks clarity. Of Jan's out-of-class papers of Junior year, analysis shows mostly high ratings on the developmental indices. Yet analysis of one paper he wrote out of class Freshman year and one out of class Junior year, both of which carry less favorable teachers' comments, suggests indeed that Jan writes less clearly while sorting (or incompletely sorting) out a problem. Such an observation has been recently widely made, by Freedman and Pringle termed a "breakdown" of the

rhetorical dimension under challenge. Again we seem to have a relationship: here the 1985 impromptu essay reflects the level but does not represent the complete picture of critical thinking he most characteristically shows in his upper-class writing course.

Insofar as one can generalize results from this experimental analysis of the writing of six students, it is notable that only the three who scored in the lower range of Freshman-level impromptu essays show a clear "rise" in their upper-level impromptu essays in most of the directions conventionally representing "maturing." The three who scored high as Freshmen scored the same holistically as upper-classmen, while changes in their writing appear as varying scores from the different analytical viewpoints. But on the cognitive indices, two of these students, of whom Jan is one, on either some out-of-class papers or the impromptu essay, already score in the upper ranges during their Freshman year. Their apparent changes after that are very subtle indeed. That is, two of the six students apparently entered college with critical thinking well in place. In all six cases the interviews give a context potentially affecting performance on one or both impromptu essays.

In terms of the use of these methods to analyze impromptu essays, then, the Pilot Case Study guides us to cautious observations and some further needs. The

cognitive-developmental approaches as one kind of analysis have much to offer. Notably, scores by the respective indices tend to correspond. Though the "stages of thinking" of both Kohlberg's and Perry's work have been noted to correspond before, the use of levels of abstracting, a different order of measurement, also tends to correspond. Indeed, Freedman and Pringle do intend to accommodate a relation between rhetorical and intellectual complexity. Even though they stipulate that their method applies to out-of-class essays, that method seems largely to work even for the impromptu essay; in the pair above, the relation of rhetorical and intellectual complexity can be seen in the essay that redirects the issue (Jan, 1985), but cannot as well be seen in the essay that creeps into complexity (Jan, 1982). A caution seems to lie in establishing the relations of dimensions. Hays, too, sets up a relation between rhetorical and intellectual complexities, but more literally. As I see it, her scale keys kinds of discourse structure to kinds of thinking (e.g., the relativistic thinker will show an extensive dialectical organization). But such a scale misfits the essay that simply does not develop that dialectic (Jan, 1985). We also need, then, a scale of flexible measures, where content and form can be perceived in a flexible relationship instead of as a single entity.

The impromptu essay as datum also has much, but not everything, to offer. Despite its limitations, despite even the writer's professed intentions, the impromptu essay does reveal that this student can think critically. Jan's professed noneffort in 1982 shows much in its unevenness: it indicates a logical complexity, though it does not fully display the critical thinking that is suggested by the papers of his Freshman literature course. Jan's professed uncontrolled effort in 1985 shows striking cognitive-developmental indications, but again does not develop any of these, as do his other writings at the time. To this reader, the out-of-class papers of 1982 and 1985 suggest nearly the same cognitive level, with differences traceable to frequency of achievement, as well as to assignment and to outside factors. We need as data, then, both several impromptu essays and several out-of-class papers.

Use of these methods has also reflected the following known limitations in attempting to apply qualitative approaches to judge "maturity" of student writing:

1. Readers' perceptions of intellectual quality differ. Our internal, normalizing, ECB readers varied from characterizing Jan's impromptu essay of 1985 as "artificially learned" to a "sophisticated idea"; readers of neither extreme persuaded the others to change their judgments.

2. Readers' perception of "maturation" may be relative. Normalizing readers who were unaware of the chronological order of two impromptu essays of one high-level writer could not guess the order, but after learning it could rationalize.

3. Outside/unknown factors may affect the complexity of impromptu or out-of-class writing. Jan's apparent struggle with a subject in his 1985 essay could be found in one of his out-of-class writings as well.

Tentative Conclusions from the Pilot Case Study

Do impromptu essays show change in critical thinking over the span of college?

This question now must subdivide. The first question is, Do impromptu essays indicate critical thinking? Here the answer is Yes. They do register logical complexity. They register logical complexity, but may not fully display it. A larger frame of reference, namely varied kinds of papers and interview or questionnaire, gives needed perspective on students' critical thinking.

The second question is whether impromptu essays by these methods show change in critical thinking over the span of college. For the two least skillful students of the six, the two impromptu essays do indicate change in critical

thinking, according to the cognitive models discussed here. For Jan and one other, they suggest subtler changes within the high range. All these signs of change are complicated but not necessarily refuted, by the outside evidence available. A trained cognitive-evaluative reading of the students' papers would be a further stage in shedding light on them. The potential usefulness of an additional multidimensional rating system rises--one that allows the contributions underlying cognitive and linguistic approaches, and also allows distinctions which our ECB holistic reading does not.

The broader conclusions of the Pilot Case Study, that the writing of six college students shows change differently, even in different directions, according to the indices applied to it, can be carried forward to a larger inquiry. Such findings seem to reinforce the fact that studies from different disciplinary viewpoints draw different conclusions on writing improvement. The findings also suggest that a single viewpoint may not do justice to the whole--or conversely, that multidimensional approaches do speak to the need in evaluating college writing. These "findings" are potentials for the study of which one needs a broader-based set of subjects and data, a reduction of bias, the addition of a multidimensional yet replicable approach--and a research team. These follow.

Notes

[1]Incubation is discussed in Young, Becker, and Pike (1970), quoted by Freedman and Pringle.

[2]The term "ceiling effect" is from Stan Jones, who attributes it in turn to Aviva Freedman.

[3]At the presentation of this paper, Hays clarified that she would have scored neither as low as my interpretation of her work on the 1982 paper, nor as high as my interpretation on the 1985 paper. She described the opening of the 1982 paper as more "glib" than dualistic. I have modified the chart "Some Approaches" to reflect her observations.

[4]Though at the presentation of this paper, Hays saw Jan's caution (relativism) as much more prominent than his determining of a path (commitment); her judgment is reinforced by Jan's comment below.

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